

Claims:

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1. An adhesive composition for a metal foil which comprises a material wherein a tracking resistance test is carried out according to the IEC method by making a thickness of an adhesive layer 30 to 40 μ m, using a copper foil pattern with a width of 4 mm and making a distance between electrodes 0.4 mm, then the adhesive layer dissolves out for the first time when 5 drops or more of an electrolyte are dropped thereon.

15 2. The adhesive composition for a metal foil according to Claim 1, wherein said composition comprises a polyvinyl acetal resin and a thermosetting resin. - See claim 6

20 3. An adhesive composition for a metal foil which comprises a polyvinyl acetal resin and a thermosetting resin and in a thermogravimetric analysis after curing, a 5 % weight loss temperature being 290°C or more and a carbon residual ratio at 650°C being less than 1 % by weight.

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BS
4. The adhesive composition for a metal foil according to Claim 3, wherein said composition comprises thermosetting resins at least one of which does not react with a polyvinyl acetal resin and which is compatible with the polyvinyl acetal resin uniformly.

30 5. The adhesive composition for a metal foil according to Claim 4, wherein said composition comprises thermosetting resins at least one of which does not have an aromatic ring.

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6. The adhesive composition for a metal foil according to Claim 4, wherein said composition comprises thermosetting heat-resistant resins at least one of which is at least one of a polyfunctional acrylate compound or a polyfunc-

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tional methacrylate compound having two or more acryloyl groups or methacryloyl groups in the molecule.

5 7. An adhesive composition for a metal foil which comprises as main components a polyvinyl acetal resin, a polyfunctional acrylate compound or a polyfunctional methacrylate compound having two or more acryloyl groups or methacryloyl groups in the molecule and an epoxy resin.

10 8. The adhesive composition for a metal foil according to Claim 7, wherein said composition comprises 20 to 500 parts by weight of a polyfunctional acrylate compound or a polyfunctional methacrylate compound having two or more acryloyl groups or methacryloyl groups in the molecule and
15 5 to 100 parts by weight of an epoxy resin based on 100 parts by weight of a polyvinyl acetal resin.

20 9. The adhesive composition for a metal foil according to Claim 7, wherein the polyfunctional acrylate compound or the polyfunctional methacrylate compound having two or more acryloyl groups or methacryloyl groups in the molecule is at least one selected from the group consisting of pentaerythritol triacrylate, trimethylolpropane triacrylate, trimethylolpropane ethyleneoxide-modified triacrylate, trimethylolpropane propyleneoxide-modified triacrylate, triacryloyloxyethyl phosphate, isocyanuric acid
25 ethylene oxide-modified triacrylate, pentaerythritol tetraacrylate, dipentaerythritol pentaacrylate, dipentaerythritol hexaacrylate, and methacrylates corresponding
30 to the above-mentioned acrylates.

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35 10. An adhesive composition for a metal foil which comprises a polyvinyl acetal resin, a polyfunctional acrylate compound or a polyfunctional methacrylate compound having two or more acryloyl groups or methacryloyl groups in the molecule and an epoxy resin, wherein said polyvinyl acetal

15 resin comprises (a) an acetacetal portion, (b) a butyl-acetal portion, (c) a vinyl alcohol portion, (d) a vinyl acetate ester portion and (e) an itaconic acid portion having a carboxyl group as a side chain in the weight ratio of

$$0.1 \leq (e) / ((a) + (b) + (c) + (d) + (e)) \leq 5,$$

and a number average degree of polymerization of 1,000 to 3,000.

10 ¹⁰ 11. The adhesive composition for a metal foil according to Claim ²10, wherein the polyvinyl acetal resin comprises, in the weight ratio,

$$0.3 < (a) / ((a) + (b)) \text{ or}$$

$$10 \leq (c) / ((a) + (b) + (c) + (d) + (e)) \leq 20.$$

15 12. The adhesive composition for a metal foil according to any one of Claims 1 to 11, wherein said composition further comprises at least one filler selected from the group consisting of silica, alumina, aluminum hydroxide, 20 magnesium hydroxide, talc and organic filler.

25 13. The adhesive composition for a metal foil according to any one of Claims 1 to 11, wherein said composition further comprises at least one of an antioxidant, a metal scavenger or a lubricant.

30 14. An adhesive-coated metal foil which is obtained by coating the adhesive composition for a metal foil according to any one of Claims 1 to 11 as a varnish on one of the surfaces of the metal foil and drying.

35 15. A metal-clad laminate obtained by laminating the adhesive layer side of the adhesive-coated metal foil according to Claim 13 on one surface or both surfaces of at least one sheet of a prepreg, and molding under heating and pressure.

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5 17. A multi-layer board obtained by laminating the adhesive layer side of the adhesive-coated metal foil according to Claim 14 on a wiring board as a circuit side and molding the resulting material under heating and pressure.

18. A multi-layer wiring board which comprises forming a circuit on the metal surface of the multi-layer board according to Claim 17.

add as

Acid
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